

Serial Number: 08/711,961

CRF Processing Date:

Edited by:

Verified by:

12/11/96

(STIC staff)

Changed a file from non-ASCII to ASCII

Changed the margins in cases where the sequence text was "wrapped" down to the next line.

Edited a format error in the Current Application Data section, specifically:

Edited the Current Application Data section with the actual current number. The number inputted by the applicant was the prior application data; or other _____

Added the mandatory heading and subheadings for "Current Application Data".

Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.

Changed the spelling of a mandatory field (the headings or subheadings), specifically:

Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:

Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.

Inserted colons after headings/subheadings. Headings edited included:

Deleted extra, invalid, headings used by an applicant, specifically:

Deleted: non-ASCII "garbage" at the beginning/end of files; secretary initials/filename at end of file; page numbers throughout text; other invalid text, such as _____

Inserted mandatory headings, specifically:

Corrected an obvious error in the response, specifically:

Edited identifiers where upper case is used but lower case is required, or vice versa.

Corrected an error in the Number of Sequences field, specifically:

A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

Deleted **ending** stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____

Other:

* Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

PAGE: 1

**RAW SEQUENCE LISTING
PATENT APPLICATION: US/08/711,961**

DATE: 12/11/96
TIME: 19:33:03

INPUT SET: S14333.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

SEQUENCE LISTING

1
2
3 (1) General Information:
4 (i) APPLICANT: Arthur A. Branstrom
5 Donata R. Sizemore
6 Jerald C. Sadoff
7
8 (ii) TITLE OF INVENTION: Bacterial Delivery System
9
10 (iii) NUMBER OF SEQUENCES: 8
11
12 (iv) CORRESPONDENCE ADDRESS:
13 (A) ADDRESSEE: John Moran
14 (B) STREET: USA MRMC - MCMR-JA
15 (C) CITY: FORT DETRICK, FREDERICK
16 (D) STATE: MARYLAND
17 (E) COUNTRY: USA
18 (F) ZIP: 21702-5012
19
20 (v) COMPUTER READABLE FORM:
21 (A) MEDIUM TYPE: Floppy disk
22 (B) COMPUTER: Apple Macintosh
23 (C) OPERATING SYSTEM: Macintosh 7.5
24 (D) SOFTWARE: Microsoft Word
25
26 (vi) CURRENT APPLICATION DATA:
27 (A) APPLICATION NUMBER:
28 (B) FILING DATE:
29 (C) CLASSIFICATION:
30
31 (vii) PRIOR APPLICATION DATA:
32 (A) APPLICATION NUMBER:
33 (B) FILING DATE:
34
35 (viii) ATTORNEY/AGENT INFORMATION:
36 (A) NAME: Moran, John
37 (B) REGISTRATION NUMBER: 26,313
38 (C) REFERENCE/DOCKET NUMBER:
39
40 (ix) TELECOMMUNICATION INFORMATION
41 (A) TELEPHONE: (301) 619-2065
42 (B) TELEFAX: (301) 619-7714
43
44 (2) INFORMATION FOR SEQ ID NO:1:
45
46 (i) SEQUENCE CHARACTERISTICS:

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/711,961DATE: 12/11/96
TIME: 19:33:07

INPUT SET: S14333.raw

47 (A) LENGTH: 1674 base pairs
 48 (B) TYPE: Nucleic acid
 49 (C) STRANDEDNESS: Double
 50 (D) TOPOLOGY: Linear
 51
 52

53 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
 54 TCCATAATCA GGATCAATAA AACTGCTGCA GAAATGATTT 40
 55 CATTATAAAC TCAAATTCCC TGATAATTGC CGCGGACTTT 80
 56 CTGCGTGCTA ACAAAAGCAGG ATAAGTCGCA TTACTCATGG 120
 57 CTTCGCTATC ATTGATTAAT TTCACTTGCG ACTTTGGCTG 160
 58 CTTTTTGTAT GGTGAAAGAT GTGCCAAGAG GAGACCGGCA 200
 59 CATTATACA GCACACATCT TTGCAGGAAA AAAACGCTTA 240
 60 TGAAAAATGT TGGTTTTATC GGCTGGCGCG GTATGGTCGG 280
 61 CTCCGTTCTC ATGCAACGCA TGGTTGAAGA GCGCGACTTC 320
 62 GACGCCATTC GCCCTGTCTT CTTTTCTACT TCTCAGCTTG 360
 63 GCCAGGCTGC GCCGTCTTTT GGCGGAACCA CTGGCACACT 400
 64 TCAGGATGCC TTTGATCTGG AGGCGCTAAA GGCCCTCGAT 440
 65 ATCATTGTGA CCTGTCAGGG CGCGGATTAT ACCAACGAAA 480
 66 TCTATCCAAA GCTTCGTGAA AGCGGATGCC AAGGTTACTG 520
 67 GATTGACGCA GCATCGTCTC TGCGCATGAA AGATGACGCC 560
 68 ATCATCATTG TTGACCCCGT CAATCAGGAC GTCATTACCG 600
 69 ACGGATTAAA TAATGGCATC AGGACTTTTG TTGGCGGTAA 640
 70 CTGTACCGTA AGCCTGATGT TGATGTCGTT GGGTGGTTTA 680
 71 TTCGCCAATG ATCTTGTGAA TTGGGTGTCC GTTGCACACT 720
 72 ACCAGGCCGC TTCCGGCGGT GGTGCGCGAC ATATGCGTGA 760
 73 GTTATTAACC CAGATGGGCC ATCTGTATGG CCATGTGGCA 800
 74 GATGAACCTG CGACCCCCGT CTCTGCTATT CTCGATATCG 840
 75 AACGAAAGT CACAACCTTA ACCCGTAGGG GTGAGCTGCC 880
 76 GGTGGATAAC TTTGGCGTGC CGCTGGCGGG TAGCCTGATT 920
 77 CCGTGGATCG ACAAAACAGCT CGATAACGGT CAGAGCCCG 960
 78 AAGAGTGGAA AGGGCAGGCG GAAACCAACA AGATCCTCAA 1000
 79 CACATCTTCC GTAATTCCGG TAGATGGTTT ATGTGTGCGT 1040
 80 GTCGGGGCAT TGGCGTGCAC CAGCCAGGCA TTCACTATTA 1080
 81 AATTGAAAAA AGATGTCGCT ATTCCGACCG TGGAAAGACT 1120
 82 GCTGGCTGCG CACAATCCGT GGGCGAAAGT CGTTCGAAC 1160
 83 GATCGGGAAA TCACTATGCG TGAGCTAACCC CCAGCTGCCG 1200
 84 TTACCGGCAC GCTGACCAACG CCGGTAGGCC GCCTGGTAA 1240
 85 GCTGAATATG GGACCAAGGT TCCTGTCAGC CTTTACCGTG 1280
 86 GGCGACCGAC TGCTGTGGGG GCGCGCGGGAG CCGCTGCGTC 1320
 87 GGATGCTTCG TCAACTGGCG TAATCTTTAT TCATTAATC 1360
 88 TGGGGCGCGA TGCCGCCCT GTTAGTGCCT AATACAGGAG 1400
 89 TAAGCGCAGA TGTTTCATGA TTTACCGGGAA GTTAAATAGA 1440
 90 GCATTGGCTA TTCTTTAAGG GTGGCTGAAT ACATGAGTAT 1480
 91 TCACAGCCTT ACCTGAAGTG AGGACGACCC AGAGAGGATG 1520
 92 CACAGAGTGC TGCACCGTTC AGGTCAAAAAA AATGTCACAA 1560
 93 CCAGAAGTCA AAAATCCAAT TGGATGGGGT GACACAATAA 1600
 94 AACAGGAAGA CAAGCATGTC CGATCGTATC GATAGAGACG 1640
 95 TGATTAACGC GCTAATTGCA GGCCATTGGT CGGA 1674
 96
 97 (2) INFORMATION FOR SEQ ID NO:2:
 98
 99 (i) SEQUENCE CHARACTERISTICS:

RAW SEQUENCE LISTING
PATENT APPLICATION: US/08/711,961

DATE: 12/11/96

TIME: 19:33:10

INPUT SET: S14333.raw

100 (A) LENGTH: 1121 base pairs
101 (B) TYPE: Nucleic acid
102 (C) STRANDEDNESS: Double
103 (D) TOPOLOGY: Linear
104 (ii) MOLECULE TYPE: Other nucleic acid
105 (A) DESCRIPTION: The *E. coli* *asd* gene coding for b-aspartic semialdehyde dehydrogen
106
107 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
108
109 TCCATAATCA GGATCAATAA AACTGCTGCA GAAATGATTT 40
110 CATTCTATAAC TCAAATTCCC TGATAATTGC CGGGGACTTT 80
111 CTGCGTGTCA ACAAAAGCAGG ATAAGTCGCA TTACTCATGG 120
112 CTTCGCTATC ATTGATTAAT TTCACTTGGC ACTTTGGCTG 160
113 CTTTTGTAT GGTGAAAGAT GTGCCAAGAG GAGACCGGCA 200
114 CATTATACCA GCACACATCT TTGCAGGAAA AAAACGCTTA 240
115 TGAAAAATGT TGGTTTTATC GGCTGGCGCG GTATGGTCGG 280
116 CTCCGTTCTC ATGCAACGCA TGGTTGAAGA GCGCGACTTC 320
117 GACGCCATTG GCCCTGTCTT CTTTTCTACT TCTCAGCTTG 360
118 GCCAGGCTGC GCCGTCTTTT GGCGGAACCA CTGGCACACT 400
119 TCAGGATGCC TTTGATCTGG AGGCGCTAAA GGCCCTCGGA 440
120 TCCTCAACAC ATCTTCCGTA ATTCCGGTAG ATGGTTTATG 480
121 TGTGGTGTGC GGGGCATTGC GCTGCCACAG CCAGGCATTC 520
122 ACTATTAAT TGAAAAAAAGA TGTGTCTATT CCGACCGTGG 560
123 AAGAACTGCT GGCTGCCAC AATCCGTGGG CGAAAGTCGT 600
124 TCCGAACGAT CGGGAAATCA CTATGCGTGA GCTAACCCCA 640
125 GCTGCCGTTA CCGGCACGCT GACCACGCCG GTAGGCCGCC 680
126 TGCCTAAGCT GAATATGGGA CCAGAGTTCC TGTCAAGCCTT 720
127 TACCGTGGGC GACCAGCTGC TGTGGGGGGC CGCGGAGCCG 760
128 CTGCGTCGGA TGCTTCGTCA ACTGGCGTAA TCTTTATTCA 800
129 TTAAATCTGG GGCAGCGATGC CGCCCCCTGTT AGTGCCTAAT 840
130 ACAGGAGTAA GCGCAGATGT TTCATGATT ACCGGGAGTT 880
131 AAATAGAGCA TTGGCTATTG TTTAAGGGTG GCTGAATACA 920
132 TGAGTATTCA CAGCCTTACCG TGAAGTGAGG ACGACGCAGA 960
133 GAGGATGCAC AGAGTGCCTGC GCCGTTTCAGG TCAAAAAAAT 1000
134 GTCACAACCA GAAGTCAAAA ATCCAATTGG ATGGGGTGAC 1040
135 ACAATAAAAC AGGAAGACAA GCATGTCCGA TCGTATCGAT 1080
136 AGAGACGTGA TTAACCGCCT AATTGCAGGC CATTTCGGG 1120
137 A 1121
138
139 (2) INFORMATION FOR SEQ ID NO:3:
140
141 (i) SEQUENCE CHARACTERISTICS:
142 (A) LENGTH: 22 base pairs
143 (B) TYPE: Nucleic acid
144 (C) STRANDEDNESS: Double
145 (D) TOPOLOGY: Linear
146
147 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
148
149 AGATCTCCCT GATAATTGCC GC 22
150
151
152

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/711,961DATE: 12/11/96
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153 (2) INFORMATION FOR SEQ ID NO:4:

154

155 (i) SEQUENCE CHARACTERISTICS:

156 (A) LENGTH: 26 base pairs

157 (B) TYPE: Nucleic acid

158 (C) STRANDEDNESS: Double

159 (D) TOPOLOGY: Linear

160

161

162 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

163

164 AGATCTCGCT TACTCCTGTA TTACGC

26

165

166

167 (2) INFORMATION FOR SEQ ID NO:5:

168

169 (i) SEQUENCE CHARACTERISTICS:

170 (A) LENGTH: 20 base pairs

171 (B) TYPE: Nucleic acid

172 (C) STRANDEDNESS: Double

173 (D) TOPOLOGY: Linear

174

175

176 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

177

178 CGAGGGCCTT TAGCGCCTCC

20

179

180

181 (2) INFORMATION FOR SEQ ID NO:6:

182

183 (i) SEQUENCE CHARACTERISTICS:

184 (A) LENGTH: 20 base pairs

185 (B) TYPE: Nucleic acid

186 (C) STRANDEDNESS: Double

187 (D) TOPOLOGY: Linear

188

189

190

191 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

192

193 GATCCTCAAC ACATCTTCCG

20

194

195

196 (2) INFORMATION FOR SEQ ID NO:7:

197

198 (i) SEQUENCE CHARACTERISTICS:

199 (A) LENGTH: 22 base pairs

200 (B) TYPE: Nucleic acid

201 (C) STRANDEDNESS: Double

202 (D) TOPOLOGY: Linear

203

204

205 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

INPUT SET: S14333.raw

206
207 GAGCTCCCT GATAATTGCC GC 22
208
209

210 (2) INFORMATION FOR SEQ ID NO:8:

211
212 (i) SEQUENCE CHARACTERISTICS:
213 (A) LENGTH: 26 base pairs
214 (B) TYPE: Nucleic acid
215 (C) STRANDEDNESS: Double
216 (D) TOPOLOGY: Linear

217
218
219 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

220
221 GTCGACCGCT TACTCCTGTA TTACGC 26

222
223 x p a | H H Rt (H H g
224 E
225
226
227
228 ! X
229 M_Courier M_New York " l *

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